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Agenda item 4

Letter dated 26 April 1999 from the Permanent Representatives of Costa Rica and Canada to the United Nations addressed to the Secretary-General

ECR-1040-99

New York, 26 April 1999

Excellency,

We have the honour to transmit herewith the text of the report of the San José meeting of experts of the Costa Rica-Canada Initiative on forests in support of the programme of work of the Intergovernmental Forum on Forests (IFF) (see annex for texts in Spanish, English and French). This meeting of experts was held in San José, Costa Rica from 22 to 26 February 1999.

We would highly appreciate it if the text of the present letter and the enclosed reports be circulated as an official document of the third session of the Intergovernmental Forum on Forests (IFF), to be held in Geneva from 3 to 14 May 1999.

(Signed) Bernd H. Niehaus
Ambassador
Permanent Representative of Costa Rica
to the United Nations

(Signed) Robert R. Fowler
Ambassador
Permanent Representative of Canada
to the United Nations

H.E. Mr. Kofi Annan
Secretary-General to
the United Nations
New York

GE.99-51590 (E)

COSTA RICA – CANADA

INITIATIVE IN SUPPORT OF CATEGORY III OF THE PROGRAMME OF WORK OF THE INTERGOVERNMENTAL FORUM ON FORESTS (IFF):

INTERNATIONAL ARRANGEMENTS AND MECHANISMS TO PROMOTE THE MANAGEMENT, CONSERVATION AND SUSTAINABLE DEVELOPMENT OF ALL TYPES OF FORESTS

Sponsored by the Governments of Costa Rica and Canada

Report of the
Experts meeting, 22-26 February 1999
San José, Costa Rica

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Foreword

This is the report of the Costa Rica-Canada initiative experts meeting held in San José, Costa Rica in February 1999. This report attempts to capture the views of the experts attending the meeting in San José and does not necessarily reflect the views of all experts.

This report is also available in French and Spanish.

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I. INTRODUCTION.

The first meeting of experts of the Costa Rica – Canada Initiative, in support of the programme of work of the Intergovernmental Forum on Forests (IFF) on Category III, was held in San José, Costa Rica from 22 to 26 of February, 1999.

As directed by the nineteenth Special Session of the U.N. General Assembly on the implementation of the Agenda 21, the Intergovernmental Forum on Forests (IFF) decided to focus its work on three interlinked categories, of which Category III deals with the international arrangements and mechanisms to promote the management, conservation and sustainable development of all types of forests. The IFF agreed that the discussions to be held under Category III "*should identify the possible elements of and work towards a consensus on international arrangements and mechanisms, for example, a legally binding instrument on all types of forests.*"

Building consensus on any subject requires a process of clarifying issues and identifying commonalties in our understanding of it. Costa Rica and Canada share a common desire to contribute to the programme of work of the IFF, by facilitating exchanges of views, engaging a holistic and comprehensive discussion and opening the dialogue to enhance the consideration and identification of elements necessary to build a global consensus on the issue of international arrangements and mechanisms.

The objective of the Costa Rica-Canada Initiative is to initiate a process to identify possible elements[1] and work toward a consensus on the usefulness of having international arrangements and mechanisms, for example, a legally binding instrument on all types of forests. Within this context, the initiative seeks to provide neutral, transparent, participatory and representative for substantive discussion and technical analysis of this issue by a wide range of interested parties. In addition, another goal is that at the end of the Initiative whatever recommendations countries make at the IFF, these recommendations will be drawn from the Initiative and be considered as a basis for discussion by IFF.

This initiative consists of three stages. The first stage of this initiative is the expert meeting held in San José, Costa Rica. The second stage will consist of a series of regional and sub-regional meetings, to take place following the meeting in Costa Rica, in which the benefits and possible elements of international instruments, arrangements and mechanisms on forests will be analyzed from the regional perspective. The third stage will be a final meeting in Canada at the end of 1999, to consolidate the results of the expert meeting in Costa Rica and the contributions of the regional and sub-regional meetings, and produce conclusions and recommendations to be submitted to the fourth session of the IFF.

The Costa Rica-Canada Initiative receives substantive direction and guidance from a Steering Committee (SC) on various aspects including the development of a framework for regional and international meetings and a common approach and documentation for use at regional meetings. At its meeting immediately prior to the San José experts meeting, the SC reiterated the importance of a common approach as a means to facilitate the consolidation of the findings of regional meetings. The SC also reiterated that both legally and non-legally binding instruments would be considered in steps 1-4 of the approach, but that step 5 focus only on legally binding options. At the October 1998 meeting of the Interim Steering Committee held in San José, it was agreed there would be a "dry run" of the first three steps of the approach in the San José meeting (Annex 3) and that regional meetings would conduct all steps.

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[1] Issues from the core set identified as having potential to be addressed in an international instrument, mechanism or arrangement

The San José experts meeting was attended by 87 experts coming from governments, intergovernmental institutions, non-governmental organizations, indigenous people, women's groups as well as invited speakers (Annex 1), reflecting a wide range of interests and views with regard to Category III of IFF's mandate.

II. AGENDA

The San José meeting considered the following agenda items:

- The agreed mandate concerning Category III of the IFF programme of work,
- The experience of Central America with regard to its regional convention on forests,
- Lessons learned from the implementation of other existing instruments,
- General concepts and terms of legal instruments,
- Possible elements of international instruments on forests,
- Guidance for regional and sub-regional consultations,
- Further action required for building consensus over the period of March 1999 to February 2000.

Following the recommendation made by the Steering Committee of the Initiative in October 1998, an approach was proposed to facilitate the compatibility and the consolidation of findings from regional meetings concerning the identification of possible elements of international instruments on forests. The objective of the proposed approach is to serve as a guideline for the regional and international meetings to be held. Each step has its own objective, as follows:

Step 1: To identify a core set of international forest issues.

Step 2: To analyze the level of treatment of the issues of the core set identified in Step 1, in the existing instruments.

Step 3: To identify issues of the core set that could potentially be advanced as elements through international instruments and those that likely would not.

Step 4: To identify a range of legally and non-legally binding instrument options for addressing the possible elements identified in step 3.

Step 5: To improve understanding of the pros and cons of the legally binding options identified in step 4.

Steps 1, 2 and 3 were applied in the San José meeting with the purpose of identifying possible elements of international instruments, reviewing the proposed approach and providing guidance for the regional and sub-regional meeting, which will also consider steps 4 and 5. Some experts expressed concerned that the methodology employed prevented a broader debate on the substantive issues of Category III.

In order to facilitate full participation of experts and enhance discussions, four working groups were organized. Distribution of experts among working groups was made with a view to ensure balance, geographically equitable representation from countries, reflecting a wide range of interests and views from all interested parties. Facilitators assisted the working groups in the use of the proposed approach.

One rapporteur was appointed for each working group in order to present the results of each session in plenary and be part of the drafting committee responsible for the preparation of the meeting's report (See

Annex 2 for lists of rapporteurs and facilitators). The Secretariat of the Initiative assisted the rapporteurs in the drafting of the meeting's report.

The proceedings of the meeting were covered by the Earth Negotiations Bulletin. The report is available on their Web site at www.iisd.ca.

III. PRESENTATIONS.

The meeting included presentations on the following topics:

1. General concepts and terms of international instruments by Mrs. Barbara Ruis, international law specialist.
2. Central American experience with the regional convention on forests by Mr. Jorge Rodríguez, expert in Central American forestry policy.
3. Lessons learned from the implementation of other existing instruments: implementation of CITES in Costa Rica by Mr. Juan Rodríguez ; implementation of the Convention on Biological Diversity in Costa Rica by Mrs. Vilma Obando ; implementation of the Framework Convention on Climate Change in Finland by Mr. Heikki Granholm and implementation of CITES in Thailand by Mr. Apiwat Sretarugsa .
4. Mr. Markku Aho, Chairman of the Forestry Advisor Group (FAG) presented his paper: "Towards sector support to national forest programmes"

The presentations were followed by discussion periods in order to assist experts in improving their understanding of general concepts and terms of international instruments and of implementation of existing instruments.

IV. CORE SET OF INTERNATIONAL FOREST ISSUES

As a first step, the Secretariat presented to the Expert meeting a preliminary list of 53 international issues related to forests, as provided in the approach document. The experts considered these issues, reviewed them and identified a core set of international forest issues.

Among their findings, most experts established that all issues on the given list were relevant as issues at all levels (national, regional and global).

The four working groups identified several other issues that were of significance to forests, inter alia, renewable energy, governance, transparency, low forest cover, environmental impact assessments (EIA), monitoring and assessment, extent of national forest cover, and illegal logging and illegal trade of forest product. These issues were added to the initial list provided in Annex A of the approach and the updated list is included in Annex 4a of this report.

Some experts indicated that the list was too broad, some issues were irrelevant to an international perspective and some others could be dealt on a bilateral basis.

The question of "categorisation" or "clustering" of issues was frequently raised and possible solutions were suggested as follows:

Clustering criteria

- Issues needing international action at the multilateral level;
- Issues needing guidance to governments;
- Issues needing clarification;
- Issues not needing action at the international level;

Experts discussed and proposed to use for the core set of issues, the classification set out in the UN Secretary General's report (E/CN.17/ IFF/ 1998/9), titled: Management, Conservation, Sustainable Development and Institutions and Policy Instruments. However, neither this classification nor a core set of issues was retained.

The experts expressed wide opinions on the working methodology and its perceived value. All working groups experienced varying degrees of difficulty in reaching an outcome on step one, in particular the criteria one to be applied in the process of identifying those issues requiring international action. As a basis for international consensus, experts referred to the IPF proposals for action and the various regional processes, such as the Helsinki Process on Criteria and Indicators.

Prioritizing the list of issues was not favoured in the absence of a set of criteria fully shared by all. Some participants suggested using the following main categories:

- National Forest Programs;
- Institutional and policy arrangements;
- Trade and environment;
- Governance and participation,
- Socio-economics (local and international), and
- Global functions, regional and international cooperation.

Outcome

The experts supported the list in Annex 4a as a basis for working group discussions, and based on the groups discussion, identified a number of changes to the list which could then guide regional meetings. The revised list is presented in Annex 4b.

V. TREATMENT OF ISSUES IN EXISTING INTERNATIONAL INSTRUMENTS

The objective of this step was to consider the level of treatment of the issues in the core set identified in Step 1 in the existing instruments

The experts were asked to assess the coverage of the core set of issues identified in existing instruments. Each working group was assigned a subset of the core set of issues (Annex 4a). Working groups concentrated on the following two questions:

Is the issue considered? If so, is the level of treatment sufficient or insufficient?

Some groups looked at the issues across the five suggested groups of existing international instruments and related processes: International conventions (Convention on Biological Diversity, UN Framework Convention on Climate Change, Convention to Combat Desertification, Convention on the International

trade in Endangered Species of Wild Flora and Fauna, Convention on Wetlands of International importance, especially of Waterfowl habitat, International Tropical Timber Agreement, 1994), Agenda 21, Forest Principles, IPF Proposals for Action, and various regional processes on criteria and indicators for sustainable forest management.

Results of the Working Groups are set out in Annex 5. These results are derived from the Working Groups and do not necessarily reflect the views of all experts.

General conclusions

It was generally understood that most issues contained in the core set were considered in some way or another in various international instruments but that there was insufficient treatment depending on the context of the issues.

It was also recognized that differences in the level of treatment were inevitable when defining the threshold of insufficiency according to the specific instrument considered. For instance, experts stated that the Agenda 21 and the Forest Principles considered more or less all the issues sufficiently, the IPF Proposals for Action considered some issues sufficiently and some insufficiently. The experts also agreed that criteria and indicators processes covered relevant issues sufficiently, but the question of global consistency and application at the national level remained subject to further elaboration.

During this step, potential difficulties were highlighted, that may need to be addressed: for example overlaps in definitions, including diverse aspects for consideration in the format, and others needed clarification.

Experts expressed concern over how "Sufficiency and insufficiency" would be defined, and concluded that there was need for further guidance on the exact meaning of these terms (i.e., is the topic covered by the instrument itself, or in practice/ reality?).

For the exercise's purposes, the experts limited their assessment to how these issues were treated at the international level. Due to the time constraints, further reflection of treatment of these issues at the national and regional levels would be addressed at the regional meetings.

Because of time constraints and limitation imposed by the matrix, there was limited opportunity for experts to explain their opinions on the degree of treatment, and the particular instruments to which they were referring to.

Some issues, such as Forest Assessment, were addressed by international institutions (e.g. FAO), but it was not possible to record this in the matrix. A possible solution would be to include "International Institutions " within " International Instruments" or as a separate heading.

Regarding criterion 9, some experts were confused on what the criterion meant; others found the criterion helpful. In one working group, experts felt the criterion was potentially misleading and applied it with the understanding that it referred to new or existing instruments, not necessarily an international forest convention.

VI. POTENTIAL TO ADVANCE ISSUES THROUGH INTERNATIONAL INSTRUMENTS

The objective of this step was to identify issues of the core set that could potentially be advanced as elements through international instruments and those that likely would not.

Using the core set of issues identified in Step 1, the aim of this stage in the methodology was to seek guidance from the experts and to propose a list of possible elements that might be included in new or existing international instruments in the short and medium term. Working Groups used the same subset of issues used in the previous step.

The criteria proposed for this step are in Annex B of the approach document.

The results of the Working Groups are set out in Annex 6. These results are derived from Working Groups and do not necessarily reflect the views of all the experts.

General conclusions:

As in the first two previous steps, all working groups faced difficulties in understanding the work required, notably the linkages between the criteria and the issues. Again, many experts reiterated the cross cutting complexities of issues. A number of questions were raised: for example, were experts intended to address the *desirability* of advancing issues through international instruments or just the *potential* to advance issues by these means?

Experts limited their assessment and recommendations to the *potential* without considering either desirability or specific mechanisms.

It was also re that because issues would vary between regions, there was no stagnant time frame in dealing with the issues comprehensively. Most experts agreed that all time frames, i.e. short and medium term, had merits for all issues to be advanced in an instrument, but it was difficult to narrow down the time frame without detailed analysis. Experts did not discuss the type of instrument in this context.

VII. GUIDANCE FOR REGIONAL AND SUB-REGIONAL MEETINGS: REVIEW OF THE PROPOSED APPROACH

Based on the results of the discussions of the working groups while using the approach, an opportunity was provided to the experts to review the approach and provide guidance for the regional meetings as the second stage of the Initiative.

Many experts felt that the proposed approach should be flexible and allow participants to reflect the needs and particularities of each region or sub-region. However, it was also stressed that there is a need for a common and systematic approach that would facilitate the achievement of the objective of the initiative. Through such an approach, the political debate will be better informed.

It was also stated that guidance should draw from the existing consensus documents, in particular the Forest Principles, Agenda 21, IPF proposals for action and IFF programme of work.

Many experts mentioned that there is a need for a clear understanding of terminology used in all steps of the approach.

A number of people indicated that there is scope to simplify the approach, for example through consolidating the steps of the approach. The questions should be simplified. A specific proposal was made along the following lines: (i) what are the reasons for non-sustainable forest management? (ii) find if any issue can be tackled by any form of international arrangement; (iii) what form of arrangement

could be used? It was felt that whatever the final form of the approach, it should be formatted so that for each step, an objective and a product are identified.

It was also stated that regional meetings should seek balance and participation of the technical view and political view. Some people expressed concern that the regional and sub-regional consultations provide sufficient time to apply a common approach, and that regional meetings should consider lessons learned from the implementation of existing instruments, in particular identifying what has been successful in terms of significant changes at the ground level.

Experts felt that it was important that in the planning of regional meetings, care be taken to ensure that experts are adequately briefed, notably with respect to the international forest policy dialogue and on existing forest related instruments. Some experts mentioned the value of organizing national consultations before the regional and sub-regional meetings could take place. It was felt that the results of regional meetings could be greatly enhanced by the contributions provided by this process of national consultations.

Some experts emphasized the importance of all regional meetings taking fully into account the results of IFF3 with regard to Category III, in accordance with the process of the Costa Rica-Canada initiative. It was also mentioned that regional meetings should help to identify the functions of the international regime and forest issues that are not currently adequately addressed at the global level.

Concerning participation, it was mentioned that regional meetings should include a broad array of expertise, notably in the area of implementation of forest policies and programs. It was also mentioned that indigenous people and local communities should be represented at all regional meetings. The point was made that indigenous rights should be part of any future international forest related instrument.

The experts from the Environmental Investigation Agency, the Institute of Cultural Affairs-Ghana, the International Alliance of Indigenous and Tribal Peoples of Tropical forests, the International Indian Treaty Council, the Global Forest Policy Project, Greenpeace International, Mexico's Women NGOs, and Sobrevivencia of Paraguay perceived a lack of opportunities to discuss comprehensively the world's most critical forest problems. In their view, the methodology used was problematic, and they trusted that the organizers would take full account of the methodology's shortfalls in their preparation of subsequent regional and international meetings. These, and other views, were expressed in the written joint statement which is available on: http://www.greenpeace.org/~forests/newsflash.html.

It was suggested that the approach be revised to include the recommendations of the experts present at the San Jose meeting and guidance will be provided by the Steering Committee.

The following suggestions were made regarding Step 1:

- some issues in the proposed set of issues should be separated;
- some issues should be clustered in order to obtain a shorter list without endangering the scope of the analysis;
- the approach should not contain a proposed core set of issues;
- organizers of regional meetings should propose core sets of issues;
- issues should be drawn from known issues lists (e.g., IPF and IFF) as a point of departure for regional meetings;
- the final reports of IFF related initiatives should be made available to regional meetings, including the report of the global workshop on underlying causes of deforestation.

The following suggestions were made regarding Step 2:

- make distinction between global and regional levels when assessing the level of treatment of issues in existing international instruments;
- the method for this step should allow all views to be captured;
- regarding the level of treatment of issues in existing international instruments, the meaning of "sufficient" and "insufficient" should be clearly defined;
- the reasons why and the extent to which existing international commitments have not been implemented so far should be considered.

The following suggestions were made regarding Step 3:

- Steps 2 and 3 should be combined.
- The reordering of the steps (1,3, and then 2) would perhaps make more progress at regional meetings.
- It is important to keep step 2.

VIII. FURTHER ACTION REQUIRED FOR BUILDING CONSENSUS OVER THE PERIOD OF MARCH 1999 TO FEBRUARY 2000.

Experts addressed the issue of following up to the San Jose meeting in order to examine mechanisms to build consensus and suggestions for further actions for the period between March 1999 and February 2000.

It was felt important that partners in the initiative utilize the opportunity given by future scheduled international meetings, in particular the IFF III, to assess the progress of and exchange views on the Initiative. Some experts mentioned the importance of taking advantage of other specific international and sub-regional meetings related to forests, like COFO and the meeting of the Andean Area to be held in Lima, Perú to maintain a constant flow of information about the Initiative and to forward the results of the San José meeting as a contribution to their deliberations. Additionally, it was suggested that the results of the above mentioned international meetings could serve as inputs to regional and sub-regional meetings within the Costa Rica-Canada initiative.

Information was given to the experts in regard to number, dates, and location of the regional meetings. The significant number of countries interested in hosting and providing financial support for regional meetings is an indication of the strong support for the Costa Rica-Canada Initiative. It is envisioned that in the coming months, the initiative has the potential to involve through regional meetings virtually all countries and involve a wide range of representatives from governments, international institutions, non-government organizations, indigenous people, women's groups and the private sector. Information, as it becomes available, will be distributed through the Secretariat of the initiative and on the initiative web site: http://www.nrcan.gc.ca/cfs/crc.

Some experts mentioned the value of organizing national consultations before the regional and sub-regional meetings could take place. It was felt that the results of regional meetings could be greatly enhanced by the contributions provided by this process of national consultations.

The results of the San José meeting will be forwarded to the regional meetings, which will comprise the second stage of the Initiative, and to the third session of the IFF in 1999. They will also be referred to the final meeting at the end of 1999, in Canada, which will consolidate the results of the meeting in Costa Rica and the suggestions of the regional meetings and produce general conclusions to be submitted to the fourth session of the IFF in the year 2000.

ANNEXES

ANNEX 1

Costa Rica Canada Initiative Experts meeting
Iniciativa Costa Rica Canadá Reunión de Expertos
Initiative Costa Rica-Canada, Réunion d'experts
San José, Costa Rica

Participants – Participantes – Participants

1. AGYEMAN, Fredua	Ghana
2. AHO, Markku	Forest Advisory Group
3. ASADI, Bgher H.E.	IFF Co-Chair
4. BARSK-RUNDQUIST, Elisabeth	IFF Secretariat
5. BOBKO, Igor	Belarus
6. AMHA BIN, Buang	ITTO
7. CASTRO, Estebancio	IITC
8. CUCO, Arlito	Mozambique
9. CHAN, Lai Har	Malaysia
10. CHAVES, Guido	Costa Rica
11. DE, Lu	People's Republic of China
12. DELANEY, Adam	Papua New Guinea
13. DÍAZ, Elias	Sobrevivencia and Friends of the Earth - Paraguay
14. DOUGLAS, Jim	World Bank
15. DUNN, Darryl	New Zealand
16. FULLETON, Mike	Canada
17. GIACINI DE FREITAS, Andre	IFBWW
18. GRANHOLM, Heikki	Finland
19. HALL, Andrew Clayton	Guyana
20. HEADLEY, Marilyn	Jamaica
21. HOENISCH, Ulrich	Germany
22. JIMBIQUITI Z, Jose Luis	COICA
23. JONES, Libby	United Kingdom
24. KOMATSU, Kiyoshi	IGES
25. KORNIENKO, Alexey	Russian Federation
26. KUZMICHEV, Evgeny	IFF Vice-Chair
27. LAROUSSINIE, Olivier	France
28. LINARES LANDA, Elias	Cuba
29. LJUNGMAN, Lennart	FAO
30. MAINI, Jag	IFF Secretariat
31. MALVAS, Jose JR	Philippines
32. MANKIN, William	Global Forest Policy Project
33. MCALPINE, Jan	USA
34. MERSMANN, Christian	Germany
35. MHIRIT, Omar	Morocco
36. MORAIS, Carlos	Portugal
37. MUEHLEMANN, Pierre	Suisse
38. MUSALEM LOPEZ, Francisco	Mexico
39. NAGAME, Ichiro	Japan
40. NORDANSTIG, Gunnar	Sweden
41. OISTAD, Knut	Norway

42. OKRAH, Lambert	Institute for Cultural Affairs, Ghana
43. ONYANGO, Gershom	Uganda
44. OTODO, Kede	Cameroon
45. PARMENTIER, Remi	Greenpeace International
46. RAWAT, A.S.	India
47. RESICO, Christina	Argentina
48. RODRIGUEZ, Gisele	Brazil
49. ROY, Régine	European Commission
50. RUALES, Mario	Ecuador
51. RUIS, Barbara	Free University Amsterdam
52. PAUL, Scott	Greenpeace
53. SCHMIDT, Ralph	UNDP
54. SHAW, Sabrina	WTO
55. SHEREIF, Mohamed	Egypt
56. SIEGEL, Gunter	Austria
57. SIMELANE, Themba L.	South Africa
58. SOLANO, Jose	Spain
59. SOLLO, Jean-Williams	Cameroon
60. SORMIN, Benni	Indonesia
61. APIWAT, Sretarugsa	Thailand
62. SAINT-LAURENT, Carole	WWF & IUCN
63. TAKAHASHI, Keisuke	Japan
64. TAAL, Bai-Mass	UNEP
65. TARSOFSKY, Richard	IUCN
66. TEMUR, Kayihan	Turkey
67. TONISSON, Kristjan	Estonia
68. TRENT, Steve	EIA
69. URZUA, Miriam	Women´s group, Mexico
70. VON DER ASSEN, Ferdinand	The Netherlands
71. WILLIAMS, Juliette	EIA
72. DOLMAN, Gary	Australia
73. NESTOR, Foster	Brazil
74. ARIAS, Marcial	Alianza Mundial de Pueblos Indígenas

CRC initiative	
CARETTE, Jacques	CRC Co-Chair
ROJAS BOLANOS, Luis	CRC Co-Chair
CHAVES, Patricia	CRC Secretariat
BERGERON, France	CRC Secretariat
DE LA GARZA, Katy	Costa Rica, Advisor
MENESES, Ricardo	Costa Rica, Advisor
RICHER, Alain	Canada, advisor
RIVERO, Isabel	Costa Rica
ROBERTS, Ralph	Canada, Advisor
SALAS, Jose Luis	Costa Rica, Advisor
TREJOS, Eduardo	Costa Rica, Advisor
LEWCHUCK, Shirley	CRC Secretariat
ROUSSEAU, Denyse	CRC Secretariat

ANNEX 2

Costa Rica – Canada Initiative Experts meeting
Iniciativa Costa Rica – Canadá, Reunión de Expertos
Initiative Costa Rica - Canadá, Réunion d'experts
San Jose, Costa Rica

Rapporteurs – Relatores

1.	Libby Jones	UK
2.	Adam Delaney	Papua New Guinea
3.	Andrew Hall Clayton	Guyana
4.	Jean Williams Sollo	Cameroon

Annex 3

An approach[2] for identifying possible elements and work towards a consensus on the usefulness of having international arrangements and mechanisms for all types of forests

[2] Proposed approach for consideration at San Jose experts meeting

Introduction

The international community has been deliberating a wide range of issues[3], related to the management, conservation and sustainable development of all types of forests. Nevertheless, it has been difficult to reach an agreement regarding the instruments that might best address these issues. Therefore "*Costa Rica and Canada have agreed to enter into a partnership to initiate a process to identify possible elements and work toward a consensus on the usefulness of having international arrangements and mechanisms, for example, a legally binding instrument on all types of forests. Within this context, the initiative will seek to provide neutral, transparent, participatory and representative fora to facilitate technical discussion on legally binding instruments on all types forests and consider possible elements of such instruments*".[4]

Discussions will utilize a common approach in order to facilitate the compatibility and the consolidation of findings from regional meetings. Figure 1 of this document illustrates the approach that will be used for the initiative.

Step 1: To identify a core set of international forest issues.

Step 2: To analyze the level of treatment in the existing instruments of the issues of the core set identified in Step 1.

Step 3: To identify issues of the core set that could potentially be advanced as elements through international instruments and those that likely would not.

Step 4: To identify a range of legally and non-legally binding instrument options for addressing the possible elements identified in step 3.

Step 5: To improve understanding of the pros and cons of the legally binding options identified in step 4.

Steps 1 and 2 should increase the understanding of international forest issues and their treatment in existing international instruments while step 3 should yield an indication of possible elements that might be included in new or existing international instruments. Step 4 focuses on determining which of the issues should be addressed in either legally binding or non-legally binding instruments. Where it is felt that the most appropriate approach to deal with a particular issue is through non-legally binding means, no further analysis is conducted within this framework. Step 5 involves an evaluation of the pros and cons of each legally binding option.

It could be expected that each participant may come to different conclusions based on the factors that influence their application of this analytical approach. Thus, this approach attempts to facilitate the identification and discussion of issues and possible elements of agreement, related to the management, conservation and sustainable use of all types of forests.

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[3] In this document the word ISSUE is defined in its broadest sense to include areas where there is international concern or interest, including problems and objectives

[4] Intersessional initiative in support of category III of the programme of work of IFF. International arrangements and mechanisms to promote the management, conservation and sustainable development of all types of forests.

FIGURE 1 : Steps of the approach

STEPS	OBJECTIVE	METHOD	PRODUCT
STEP 1	To identify a core set of international forest issues.	➢ Review the preliminary list of international forest issues contained in Annex A. ➢ Determine whether any issues are missing. ➢ Add issues of particular regional concern, if necessary. ➢ From this list, extract a manageable core set of issues.	➢ A core set of forest issues for potential international treatment to be used at all regional meetings. ➢ A set of regional issues developed at regional meetings.
STEP 2	To assess the level of treatment in the existing instruments of the issues in the core set identified in Step 1.	➢ Review existing instruments and gap analysis documents to take stock of the coverage of each issue in the core set of issues identified in step 1 and identify gaps. ➢ Register results in Table 1. ➢ Develop criteria to facilitate, in regional meetings, a better understanding of the level of treatment of issues in existing instruments.	➢ Assessment of the level of treatment of each issue and identification of gaps in international instruments. ➢ List of criteria to assist regional meetings.
STEP 3	To identify issues of the core set that could potentially be advanced as elements through international instruments and those that likely would not.	➢ Apply the criteria provided in annex B to each issue of the core set and register the results in the appropriate columns of Table 2. ➢ If necessary, additional criteria may be applied for regional issues.	A list of possible elements that might be included in new or existing international instruments in the short and medium terms.
STEP 4	To identify a range of legally and non-legally binding instrument options for addressing the possible elements identified in step 3.	Consider the appropriateness of the following options: 1. New legally binding international instrument. 2. Working within existing legally binding instruments. 3. Non legally binding approaches.	Identification of a range of legally and non-legally binding instrument options for addressing each possible element.
STEP 5	To improve understanding of the pros and cons of the legally binding options identified in step 4	➢ Apply the criteria provided in Annex C for each of the legally binding options chosen for each possible element. ➢ If necessary, additional criteria may be applied.	Identification and assessment of the pros and cons of legally binding options.

Orientation for the use of the approach

The following guidelines would be applied to the use of this document at the meetings of the Costa Rica-Canada initiative.

1. It is expected that the use of facilitators will assist in the application of this approach.

2. Prior to breaking into working groups, an explanation of each step of the approach will be given, along with an opportunity to ask questions.

3. Each working group will be asked to address a subset of the forest issues provided by the Costa Rica-Canada Secretariat which will include a selection from each category identified in step 1.

4. To facilitate the drafting of the report of the meeting, the organizers will select a slate of qualified participants to act as rapporteurs. This slate will be subject to approval by participants.

5. Rapporteurs will then be asked to cover each working group, recording key aspects of discussions. With the help of facilitators and Secretariat personnel, each will be asked to prepare and present a report in plenary.

STEP 1: To identify a core set of international

OBJECTIVE: To identify a core set of international forest issues.

METHOD:

- Review the preliminary list of international forest issues contained in Annex A.
- Determine whether any issues are missing.
- Add issues of particular regional concern, if necessary.
- From this list, extract a manageable core set of issues.

REFERENCE DOCUMENTATION:

1. International Conventions: Biodiversity, Climate Change, Desertification, CITES, RAMSAR, ITTA
2. Agenda 21
3. Forest Principles
4. Proposals for action of the Intergovernmental Panel on Forests (IPF)
5. Program of Work of the Intergovernmental Forum on Forests (IFF)
6. Reports from IFF related initiatives

Products:

- A core set of forest issues for potential international treatment to be used at all regional meetings.
- A set of regional issues developed at regional meetings.

STEP 2: Treatment of these issues in existing international instruments

OBJECTIVE: To assess the level of treatment in the existing instruments of the Issues in the core set identified in Step 1.

METHOD:

- Review existing instruments and gap analysis documents to take stock of the coverage of each issue in the core set of issues identified in step 1 and identify gaps.
- Register results in Table 1.
- Develop criteria to facilitate, in regional meetings, a better understanding of the level of treatment of issues in existing instruments.

REFERENCE DOCUMENTATION:

- Existing International Instruments:
  - International Conventions:
    - Biodiversity, Climate Change, Desertification, CITES, RAMSAR, ITTA
  - Agenda 21
  - Forest Principles
  - Proposals for action of the Intergovernmental Panel on Forests (IPF)
  - International processes on criteria and indicators for sustainable forest management.

- Other Documents:
  - Program of Work of the Intergovernmental Forum on Forests (IFF), and documentation for programme element II (e)
  - Gap study by IUCN
  - RFI Gap Analysis

Products:

- **Assessment of the level of treatment of each issue and identification of gaps in international instruments.**
- **List of criteria to assist regional meetings.**

Table 1: Template for the analysis of the treatment of forest issues in existing international instruments

	Treatment of issues in existing instruments																			
	Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment	
Issues	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient

STEP 3: Potential to address issues through international instruments

OBJECTIVE: **To identify issues of the core set that could potentially be advanced as elements through international instruments and those that likely would not.**

METHOD:

- Apply the criteria provided in annex B to each issue of the core set and register the results in the appropriate columns of Table 2.
- If necessary, additional criteria may be applied for regional issues.

Product:

A list of possible elements that might be included in new or existing international instruments in the short and medium terms.

Table 2: Determination of the potential for advancement

Issues	Probable in short term	Probable in medium term	Not probable	Justify

STEP 4: To identify a range of instrument options

OBJECTIVE: To identify a range of legally and non-legally binding instrument options for addressing the possible elements identified in step 3.

METHOD:

- Consider the appropriateness of the following legally and non-legally binding options for addressing the relevant elements identified in step 3. More than one option may be deemed appropriate.

  Option 1: New, legally binding international instrument: where an element is sufficiently important to warrant a legally binding commitment and no existing instrument is believed to have the ability to provide for such action.

  Option 2: Work under existing legally binding instruments: this category includes working within existing provisions, negotiating new provisions and developing protocols.

  Option 3: Non-legally binding approaches: this category includes new or existing soft law processes, civil society and voluntary actions. If this option is chosen, no further analysis is conducted within this framework.

  Regional options may be added if desirable.

- Record the results in the appropriate column(s) in **Table 3**, under "Instrument options for addressing possible elements".

Product:

Identification of a range of legally and non-legally binding instrument options for addressing each possible element.

Table 3: Identification and assessment of instrument options

	Step 4			Step 5													
	Instrument options for addressing possible elements			Assessing legally binding instruments option (H, M, L)													
Issues	Option 1	Option 2	Option3	New	Existing	New	Existing	New	Existing	New	Existing	New	Existing	New	Existing	New	Existing

STEP 5: Pros and cons of legally binding options

OBJECTIVE: To improve understanding of the pros and cons of the legally binding options identified in step 4.

METHOD:

- Apply the criteria provided in Annex C for each of the legally binding options chosen for each possible element and record the results in Table 3, under "Assessing legally binding instrument options".
- If necessary, additional criteria may be applied.

Product:

Identification and assessment of the pros and cons of legally binding options.

Annex A1: ISSUES

1. coordination of international action on forests
2. reform of institutions responsible for forest policy
3. coordination of cross-sectoral policies and programmes
4. financial mechanisms in support of sustainable forest management
5. forest investment
6. coordination of programmes of donors and recipients
7. technology transfer
8. capacity building
9. education and training
10. sharing information
11. coordination of research
12. definition of sustainable forest management
13. development of criteria for sustainable forest management
14. development of indicators for sustainable forest management
15. national forest programmes
16. forest assessment, inventories, statistics and modelling
17. forest valuation
18. national reporting
19. conservation of biological diversity
20. establishment of protected forest areas
21. deforestation
22. afforestation and reforestation
23. rehabilitation of fragile ecosystems
24. carbon storage and sequestration
25. mitigating the effects of climate change
26. soil and water conservation
27. impact of non-forest industries
28. impact of pollution
29. forest protection against fire
30. forest protection against insects and disease
31. non-timber products and services
32. traditional forest-related knowledge
33. fuelwood supply
34. plantations and exotic species
35. harvesting methodology
36. forest and forest products industry
37. international trade
38. market access
39. certification
40. supply and demand
41. consumption
42. economic instruments, tax policies and land tenure
43. cost internalisation
44. maintain future development potential
45. employment
46. forest community stability
47. participation
48. gender
49. indigenous people's rights
50. protection of intellectual property rights
51. infrastructure development
52. access to capital
53. rural policy

Annex A2: Example of core set of issues

1. coordination of international action on forests
2. coordination of cross-sectoral policies and programmes
3. financial mechanisms in support of sustainable forest management
4. technology transfer and capacity building
5. education and training
6. sharing information
7. development of criteria and indicators for sustainable forest management
8. national forest programmes
9. forest assessment, inventories, statistics and modelling
10. forest valuation
11. national reporting
12. conservation of biological diversity
13. afforestation and reforestation
14. carbon storage and sequestration
15. soil and water conservation
16. impact of non-forest industries
17. forest protection against fire, insects and disease
18. non-timber products and services
19. traditional forest-related knowledge
20. fuelwood supply
21. international trade
22. supply and demand
23. economic instruments, tax policies and land tenure
24. cost internalisation
25. employment
26. forest community stability
27. participation
28. indigenous people's rights
29. protection of intellectual property rights

Annex B: Criteria for determining the potential for an issue to be advanced in an international instrument

1. Potential For consensus

2. Financial issues

3. Scientific understanding

4. Scale – global, regional, national

5. Urgency of issue

6. Specificity to forests (versus cross-sectoral)

7. Importance of gap

8. National impact

9. Value added of treating the issue in a international instrument that deals comprehensively with all forests and all forest values.

Annex C: Criteria for assessing the pros and cons of legally binding options

1. **To what extent does the option complement existing forest-related instruments?**
   Existing international instruments will already treat many of the issues. The option should complement such instruments. **(Complement)**

   Rating: High (H), Medium (M) or Low (L)

2. **To what extent is the option politically feasible?**
   Different options may have different impacts on national interests. **(Feasible)**

   Rating: High (H), Medium (M) or Low (L)

3. **To what extent are there problems associated with implementing the option? (Implementation)**

   Rating: High (H), Medium (M) or Low (L)

4. **To what extent will the option lead to on-the-ground change? (Effectiveness)**

   Rating: High (H), Medium (M) or Low (L)

5. **To what extent are the costs associated with implementing the option significant?** Implementation of a legally binding option will impose costs. **(Costs)**

Rating: High (H), Medium (M) or Low (L)

End of Annex 3

ANNEX 4a

ISSUES

1. Definition of sustainable forest management
2. Criteria and indicators for sustainable forest management
3. Forest assessment, inventories and statistics
4. National forest programmes
5. Deforestation/forest degradation (including underlying causes)/ afforestation/reforestation/ exotic species/desertification
6. Traditional forest related knowledge
7. Fire, insects, diseases, drought
8. Ecosystem management
9. Low forest cover
10. Agroforestry
11. Extent of national forest cover
12. Sustainable management of all types of forests
13. Biodiversity
14. Protected areas (representative networks)
15. Soil and water conservation
16. Carbon storage and sequestration/mitigating the effects of climate change
17. Environmental impact assessment / monitoring
18. Trade (international, national and sub-national)
19. Market access
20. Certification/ecolabelling
21. Cost internalization/green accounting
22. Economic instruments (including perverse subsidies and incentives), tax policies and land tenure
23. Supply and demand/consumption patterns/promotion of use of environnementally friendly products
24. Employment/health and safety standards/assessment and security of forest workers
25. Forest and forest products industry
26. Forestry practices (including harvesting practices)
27. Forest valuation
28. Technology transfer
29. Impact of pollution
30. Impacts of forest and non-forest industries
31. Non-wood goods and services
32. Renewable energy
33. Maintain future sustainable development potential
34. Community stability
35. Chemical applications
36. Illegal logging/trade/corruption
37. Primary forest conversion
38. Cultural and spiritual values
39. Maintaining a full range of forest values

40. Global functions
41. Trade statistics accuracy
42. Coordination of international action on forests/cooperation
43. Reform of institutions responsible for forest policy/permanent forum on forests
44. Coordination of cross sectoral policies and programmes (international, national, sub national)
45. Capacity building
46. Education and training
47. Public access to information/sharing information
48. Financial mechanisms/forest investment
49. Coordination of programmes of donors and recipients (including forest partnership agreements)
50. National reporting
51. Participation/empowerment
52. Gender
53. Rights of indigenous people and local communities
54. Intellectual property rights
55. Infrastructure development
56. Access to resources (natural resources, capital and other)
57. Rural policy and land use
58. Governance
59. Sustainable development policy
60. Policy for allocating forest concessions
61. Partnership between the private sector, civil society and governments
62. Monitoring of forest management activities
63. Maintenance of forest policy
64. Integrated land use planning
65. National law enforcement and good governance
66. Private sector activities (including voluntary codes of good practice)
67. Benefit sharing
68. Sustainable development policy
69. Cross-border conflicts and consultations
70. Compliance with obligations
71. Settlement of conflict resolution
72. Research

ANNEX 4b

CORE SET OF INTERNATIONAL FOREST ISSUES[5]

(Revised list)

1. Definition of sustainable forest management
2. Criteria and indicators for sustainable forest management
3. Forest assessment, inventories and statistics
4. National forest programmes
5. Deforestation/forest degradation (including underlying causes)/ afforestation/reforestation/ exotic species/desertification/plantation
6. Traditional forest related knowledge
7. Fire, insects, diseases, drought
8. Ecosystem management
9. Low forest cover
10. Agroforestry
11. Extent of national forest cover
12. Sustainable management of all types of forests
13. Biodiversity
14. Protected areas (representative networks)
15. Soil and water conservation
16. Carbon storage and sequestration/mitigating the effects of climate change
17. Environmental impact assessment / monitoring
18. Trade (international, national and sub-national)
19. Market access
20. Certification/ecolabelling
21. Cost internalization/green accounting
22. Economic instruments (including perverse subsidies and incentives), tax policies and land tenure
23. Supply and demand/consumption patterns/promotion of use of environnementally friendly products
24. Employment/health and safety standards/assessment and security of forest workers
25. Forest and forest products industry
26. Forestry practices (including harvesting practices)
27. Forest valuation
28. Technology transfer
29. Impact of pollution
30. Impacts of forest and non-forest industries
31. Non-wood goods and services
32. Renewable energy
33. Maintain future sustainable development potential
34. Community stability

[5] The experts supported the list in Annex 4a as a basis for working group discussions, and based on the groups discussion, identified a number of changes to the list in annex 4a which could then guide regional meetings.

35. Chemical applications
36. Illegal logging/trade/corruption
37. Primary forest conversion
38. Cultural and spiritual values
39. Maintaining a full range of forest values
40. Global functions
41. Trade statistics accuracy
42. Coordination of international action on forests/cooperation
43. Reform of institutions responsible for forest policy/permanent forum on forests
44. Coordination of cross sectoral policies and programmes (international, national, sub national)
45. Capacity building
46. Education and training
47. Public access to information/sharing information
48. Financial mechanisms/forest investment
49. Coordination of programmes of donors and recipients (including forest partnership agreements)
50. National reporting
51. Participation/empowerment
52. Gender
53. Rights of indigenous people and local communities
54. Intellectual property rights
55. Infrastructure development
56. Access to resources (natural resources, capital and other)
57. Rural policy and land use
58. Governance (national and international levels)
59. Sustainable development policy
60. Policy for allocating forest concessions
61. Partnership between the private sector, civil society and governments
62. Monitoring of forest management activities
63. Implementation of forest policy
64. Sound land use planning
65. Private sector activities (including voluntary codes of good practice)
66. Benefit sharing
67. Cross-border effects
68. Compliance with obligations
69. Dispute settlement
70. Research

Annex 4c

ISSUES[6]

MANAGEMENT	
Issues from Annex A1	**Issues from Working Groups**
Definition of sustainable forest management	Ecosystem management
Criteria and indicators for sustainable forest management	Low forest cover
Forest assessment, inventories and statistics	Agroforestry
National forest programmes	Extent of national forest cover
Research	Sustainable management of all types of forests
Deforestation/forest degradation (including underlying causes)/ afforestation/reforestation/ exotic species/desertification	
Traditional forest related knowledge	
Fire, insects, diseases, drought	
CONSERVATION	
Issues from Annex A1	**Issues from Working Groups**
Biodiversity	Environmental impact assessment / monitoring
Protected areas (representative networks)	
Soil and water conservation	
Carbon storage and sequestration/mitigating the effects of climate change	

[6] *Issues from Annex A1* include original issues and reformulations based on working group recommendations. Some new issues were grouped with Annex A1 issues.
Issues from working groups are drawn from working group reports.

SUSTAINABLE DEVELOPMENT	
Issues from Annex A1	**Issues from Working Groups**
International trade	Illegal logging/trade
Market access	Primary forest conversion
Certification/ecolabelling	Cultural and spiritual values
Cost internalization/green accounting	Maintaining a full range of forest values
Economic instruments, tax policies and land tenure	Global functions
Supply and demand/consumption	
Employment/health and safety standards	
Forest and forest products industry	
Forestry practices (including harvesting practices)	
Forest valuation	
Technology transfer	
Impacts of forest and non-forest industries	
Non-wood goods and services	
Renewable energy	
Maintain future sustainable development potential	
Community stability	

INSTITUTIONS AND POLICY INSTRUMENT	
Issues from Annex A1	**Issues from Working Groups**
Coordination of international action on forests	Policy for allocating forest concessions
Reform of institutions responsible for forest policy	Partnership between the private sector, civil society and governments
Coordination of cross sectoral policies and programmes (international, national, sub national)	Monitoring of forest management activities
Capacity building	Maintenance of forest policy
Education and training	Integrated land use planning
Public access to information/sharing information	National law enforcement and good governance
Financial mechanisms/forest investment	Private sector activities (including voluntary codes of good practice)

Coordination of programmes of donors and recipients (including forest partnership agreements)	Benefit sharing
National reporting	
Participation/empowerment	
Gender	
Rights of indigenous people and local communities	
Intellectual property rights	
Infrastructure development	
Access to resources (capital and other)	
Rural policy and land use	
Governance	
Trade (international, national, sub-national)	

ANNEX 5

Table 1: Template for the analysis of the treatment of forest issues in existing international instruments

Issues	Treatment of issues in existing instruments																			
	International conventions				Agenda 21				Forest Principles				IPF Proposals for Action				C&I Processes			
	Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment	
	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient
1. Definition of sustainable forest management		X				X				X				X			X			X
2. Criteria and indicators for sustainable forest management	X			X	X			X	X			X	X		4	4	X		X	
3. Forest assessment, inventories and statistics	X				X				X				X			X	X			X
4. National forest programmes	X			X	X	X			X	X			X		X		X			
5. Deforestation/forest degradation (including underlying causes)/ afforestation/reforestation/ exotic species/desertification	X			X	X		X		X		X		X			X	X			
6. Traditional forest related knowledge	X			X	X		X		X		X		X		X		X			X
7. Fire, insects, diseases, drought	X			X	X				X				X				X		X	X
8. Ecosystem management	X		X		X		X		X				X							
9. Low forest cover	X		X		X		X		X		X		X		X		+/-		X	
10. Agroforestry		X			X			X	X			X	X			X		X		
11. Extent of national forest cover	X			X	X				X				X							
12. Sustainable management of all types of forests	X			X	X		X		X		X		X		X		X		X	
13. Biodiversity	X		X		X		X		X		X		X			X	X		X	

4. Protected areas (representative networks)	X		X		X		X		X		X		X			X	X		X	
5. Soil and water conservation	X			X	X		X		X			X	X			X	X		X	
6. Carbon storage and sequestration/mitigating the effects of climate change	X			X	X		X	X	X	X			X			X	X		X	
17. Environmental impact assessment / monitoring	X			X	X		X		X		X		X			X	X		X	
18. Trade (international, national and sub-national)	X			X	X			X	X		X		X			X	X			X

COMMENTS ON ISSUES:

Issue 1C&I: no global process
Issue 2nternational Conventions: not global, not in writing
Issue 3C&I: not global
Issue 5C&I: difference between regions
Issue 9 C&I: some regulation

	All Instruments			
	Consideration of the issue		Level of treatment	
Issues	Yes	No	Sufficient	Insufficient
19. Market access	X			X
20. Certification/ecolabelling	X		X	
21. Cost internalization/green accounting		X		X
22. Economic instruments (including perverse subsidies and incentives), tax policies and land tenure	X			X
23. Supply and demand/consumption patterns/promotion of use of environmentally friendly products	X			X
24. Employment/health and safety standards/assessment and security of forest workers	X		X	
25. Forest and forest products industry	X			X
26. Forestry practices (including harvesting practices)	X			X
27. Forest valuation				
28. Technology transfer	X			X
29. Impact of pollution	X			X
30. Impacts of forest and non-forest industries	X			X
31. Non-wood goods and services				
32. Renewable energy				
33. Maintain future sustainable development potential				

34. Community stability				
35. Chemical applications				
36. Illegal logging/trade/ corruption				

COMMENTS ON ISSUES:

- Issue 20. Resolution of government role is insufficient but certification is a private initiative and well covered in that respect. Insufficient because of lack of research, coordination and information sharing.
- Issue 21. Insufficient because only in IFF proposals.
- Issue 22. Insufficient: covers too many issues but not in detail.
- Issue 24. Many view points on this issue. Enough laws and regulations at national and international levels. The issue is compliance.
- Issue 25. More consideration needed. There is a need to improve environmental impacts, marketing, economic efficiency, etc. Too broad an issue to allow real focus.
- Issue 26. Need for "Best Practices" model. Some practices are not well treated in Agenda 21 or IPF.
- Issue 27. At policy level, not at research level, it is insufficient.
- Issue 28. Information exchange is inadequate. Limited effects as a result of technology transfer (adequate consideration?) Technology transfer to developing countries is not well done, i.e. Africa.
- Issue 29. Water and air pollution are inadequately covered, as well as that caused by chemical

	All Instruments			
	Consideration of the issue		Level of treatment	
Issues	Yes	No	Sufficient	Insufficient
37. Primary forest conversion	10	2	1	9
38. Cultural and spiritual values	8	4	-	7
39. Maintaining a full range of forest values	7	4	-	7
40. Global functions	12	-	4	8
41. Trade statistics accuracy	12	-	-	10
42. Coordination of international action on forests/cooperation	11	-	-	12
43. Reform of institutions responsible for forest policy/permanent forum on forests	11	1	-	11
44. Coordination of cross sectoral policies and programmes (international, national, sub national)	12	-	-	12
45. Capacity building	12	-	-	11
46. Education and training	12	-	-	8
47. Public access to information/sharing information	11	1	-	5
48. Financial mechanisms/forest investment	9	3	-	11
49. Coordination of programmes of donors and recipients (including forest partnership agreements)	10	2	-	7
50. National reporting	12	-	-	9
51. Participation/empowerment	10	2	-	7
52. Gender	11	1	-	5
53. Rights of indigenous people and local communities	12	-	-	11
54. Intellectual property rights	10	2	-	6

Issues	Biodiversity Convention				Climate Change Convention				Desertification/CITES/ RAMSAR/ITT			
	Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment		Consideration of the issue		Level of treatment	
	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient	Yes	No	Sufficient	Insufficient
55. Infrastructure development		X				X				X		
56. Access to resources (natural resources, capital and other)	X			X	X			X				
57. Rural policy and land use		X				X						
58. Governance		X				X						
59. Sustainable development policy	X	X		X	X			X				
60. Policy for allocating forest concessions		X				X						
61. Partnership between the private sector, civil society and governments		X			X			X				
62. Monitoring of forest management activities		X			X			X				
63. Maintenance of forest policy		X				X						
64. Integrated land use planning		X				X						
65. National law enforcement and good governance		X				X						
66. Private sector activities (including voluntary codes of good practice)		X			X	X		X				
67. Benefit sharing	X		X		X			X				
68. Sustainable development policy												
69. Cross-border conflicts and consultations												
70. Compliance with obligations		X										
71. Settlement of conflict resolution	X			X	X		X					
72. Research	X			X	X			X				

COMMENTS ON ISSUES:

- Issue 58. Degree to which officials and political decision makers actually apply laws and regulations, in a transparent manner and are accountable in practice.
- Issue 59. Sustainable development in all-encompassing
- Issue 62. Group 4 believes that monitoring a forest cover bears relevance with the FCCC Kyoto Protocol
- Issue 63. "Maintenance of Forest Policy", should be interpreted as "implementation"
- Issue 65. Recommended to delete good governance as it is covered under # 58. There is no specific mention at implementation of nations' laws, but it is implicit that the convention will be enforced.
- Issue 66. The consideration of voluntary codes of practice, in the context of legally binding instruments is irrelevant. FCCC: private sector activities will/may be part of the implementation of the Kyoto Protocol, but not yet explicitly in Kyoto Protocol mechanisms.
- Issue 67. Benefit sharing under Climate Change Convention: not clear; if sharing between partners is under joint implementation, the answer is yes. If arrangements are to share benefits within the nation, then the answer is no.
- Issue 71. Settlement of conflict resolution is changed into Settlement of Disputes, and 71 bis is added, as follows: resolution of competing forest functions and uses.

ANNEX 6A Table 2: Determination of the potential for advancement

Issues	Probable in short term	Probable in medium term	Not probable	Justify
1. Definition of sustainable forest management	X	X	X	Some concern that consensus on an agreed definition would be difficult, although progress feasible.
2. Criteria and indicators for sustainable forest management	X	X	X global	National and regional progress possible. Progress at global level more problematic.
3. Forest assessment, inventories and statistics	X	X		
4. National forest programmes	X		X	Some saw this as primarily a national issue.
5. A)Deforestation/forest degradation (including underlying causes)/ B)afforestation/reforestation/ C)exotic species/D)desertification E) plantations	C)X, D)X	A)X, B)X E)X		
6. Traditional forest related knowledge		X		
7. Fire, insects, diseases, drought	X		X	(Not probable: drought)
8. Ecosystem management	X	X		
9. Low forest cover		X		
10. Agroforestry	X			
11. Extent of national forest cover		X (if as 5)	X	
12. Sustainable management of all types of forests	X	X		
13. Biodiversity	X	X		
14. Protected areas (representative networks)	X			
15. Soil and water conservation		X		
16. Carbon storage and sequestration/mitigating the effects of climate change	X	X		(Medium if no emission decrease)
17. Environmental impact assessment / monitoring	X			
18. Trade (international, national and sub-national)	X	X		

Issues	Probable in short term	Probable in medium term	Not probable	Justify
19. Market access	X	X		
20. Certification/ecolabelling	X	X		
21. Cost internalization/green accounting	X	X		
22. Economic instruments (including perverse subsidies and incentives), tax policies and land tenure	X	X		
23. Supply and demand/consumption patterns/promotion of use of environnementally friendly products	X	X		
24. Employment/health and safety standards/assessment and security of forest workers	X	X		
25. Forest and forest products industry	X	X		
26. Forestry practices (including harvesting practices)	X	X		
27. Forest valuation	X	X		
28. Technology transfer	X	X		
29. Impact of pollution	X	X		
30. Impacts of forest and non-forest industries	X	X		
31. Non-wood goods and services	X	X		
32. Renewable energy	X	X		
33. Maintain future sustainable development potential	X	X		
34. Community stability	X	X		
35. Chemical applications	X	X		
36. Illegal logging/trade/corruption	X	X		

37. Primary forest conversion	5	1		
38. Cultural and spiritual values	2	6		
39. Maintaining a full range of forest values	6	2		
40. Global functions	8	2		
41. Trade statistics accuracy	8	1		
42. Coordination of international action on forests/cooperation	5	3		
43. Reform of institutions responsible for forest policy/permanent forum on forests	7	2		
44. Coordination of cross sectoral policies and programmes (international, national, sub national)		8		
45. Capacity building	1	8		
46. Education and training	7	1		
47. Public access to information/sharing information	9			
48. Financial mechanisms/forest investment	8	3		
49. Coordination of programmes of donors and recipients (including forest partnership agreements)	9	1		
50. National reporting	10			
51. Participation/empowerment	5	5		
52. Gender	7	3		
53. Rights of indigenous people and local communities	7	2		
54. Intellectual property rights	3	6		

Issues	Probable in short term	Probable in medium term	Not probable	Comments
55. Infrastructure development	X			
56. Access natural resources			X	
Access to capital and other	X	X		
57. Rural policy and land use	X			
58. Governance	X			
59. Sustainable development policy			X	
60. Policy for allocating forest concessions			X	
61. Partnership between the private sector, civil society and governments	X			INCLUDES 66
62. Monitoring of forest management activities	X			
63. Maintenance of forest policy	X			USE IMPLEMENTATION
64. Integrated land use planning		X		REPLACE WITH "SOUND"
65. National law enforcement and good governance				PART OF GOVERNANCE
66. Private sector activities (including voluntary codes of good practice)				INCLUDED IN 61
67. Benefit sharing		X		
68. Sustainable development policy				SAME AS 59
69. Cross-border conflicts and consultations		X		CROSS-BORDER EFFECTS
70. Compliance with obligations			X	
71. Settlement of conflict resolution		X		DISPUTE SETTLEMENT
72. Research	X			

Annex 6B: CRITERIA FOR DETERMINING THE POTENTIAL FOR AN ISSUE TO BE ADVANCED IN AN INTERNATIONAL INSTRUMENT

	Potential for consensus	Financial issues	Scientific understanding	Scale'global, regional, national	Urgency of issue	Specificity to forests)versus cross sectoral	Importance of gap	National impact	Value added
1. Definition of sustainable forest management									
2. .Criteria and indicators for sustainable forest management									
3. Forest assessment, inventories and statistics									
4. National forest programmes									
5. Deforestation/forest degradation (including underlying causes)/ afforestation/reforestation/ exotic species/desertification									
6. Traditional forest related knowledge	X		X		X		X	X	X
7. Fire, insects, diseases, drought			X	X	X				X
8. Ecosystem management	X	X		X	X		X	X	X
9. Low forest cover	X	X	X	X			X	X	X
10. Agroforestry	X		X	X	X			X	X
11. Extent of national forest cover	NO (?)								
12. Sustainable management of all types of forests	X	X	X	X	X	X	X	X	X
13. Biodiversity	X	X	X	X	X		X	X	X
14. Protected areas (representative networks)	X	X	X		X				X
15. Soil and water conservation	X	X	X	X	X		X	X	X
16. Carbon storage and sequestration/mitigating the effects of climate change	X	X	X	X	X		X	X	X
17. Environmental impact assessment / monitoring	X		X		X		X		X
18. Trade (international, national and sub-national)	X	X	X		X	X	X	X	X

Scientific understanding: Issue 6, (Refining) sharing; Issue 8, needs clarification; Scientific understanding: Issue 16, improve
Scale: global, regional, national: Issue 1: National and local scale; Issue 7: Regional impact, national, global implementation, transboundary, Issue 9: Regional; Issue 10: Regional; Issue 14: Global; Issue 15: National regulation; Issue 16: Global; Issue 18: Global regulation
Urgency of issue: Issue 6: Mid; Issue 9: Only to those who have low cover; Issue 10: Regional
Specificity to forests , versus cross sectoral: Issue 8: non specific

	Potential for consensus	Financial issues	Scientific understanding	Scale' global, regional, national	Urgency of issue	Specificity to forests)versus cross sectoral	Importance of gap	National impact	Value added
19. Market access									
20. Certification/ecolabelling									
21. Cost internalization/green accounting									
22. Economic instruments (including perverse subsidies and incentives), tax policies and land tenure									
23. Supply and demand/consumption patterns/promotion of use of environnementally friendly products									
24. Employment/health and safety standards/assessment and security of forest workers									
25. Forest and forest products industry									
26. Forestry practices (including harvesting practices)									
27. Forest valuation									
28. Technology transfer									
29. Impact of pollution									
30. Impacts of forest and non-forest industries									
31. Non-wood goods and services									
32. Renewable energy									
33. Maintain future sustainable development potential									
34. Community stability									
35. Chemical applications									
36. Illegal logging/trade/corruption									

	Potential for consensus			Financial issues			Scientific understanding			Scale'global, regional, national			Urgency of issue			Specificity to forests versus cross sectoral			Importance of gap			National impact			Value added		
	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L	S	M	L
37. Primary forest conversion	X												X														
38. Cultural and spiritual values	X			X	X			X		X	X		X			X	X		X								
39. Maintaining a full range of forest values																											
40. Global functions	X			X	X		X						X									X	X				
41. Trade statistics accuracy				X			X	X					X			X						X					
42. Coordination of international action on forests/cooperation				X	X								X														
43. Reform of institutions responsible for forest policy/permanent forum on forests	X				X								X														
44. Coordination of cross sectoral policies and programmes (international, national, sub national)																											
45. Capacity building	X				X					X			X	X													
46. Education and training	X				X								X									X					
47. Public access to information/sharing information	X						X						X						X			X					
48. Financial mechanisms/forest investment		X			X		X			X			X			X						X					
49. Coordination of programmes of donors and recipients (including forest partnership agreements)	X												X			X			X				X				
50. National reporting	X						X			X			X			X											
51. Participation/empowerment	X	X		X	X								X	X		X	X					X	X				
52. Gender							X									X						X					
53. Rights of indigenous people and local communities	X												X			X	X					X	X				
54. Intellectual property rights		X	X		X	X		X			X		X	X	X		X	X				X	X	X			

Criteria: Issue 37: no consensus under low probability; Issue 44: Impossible

- Importance of urgency lead to optimism in the future
- Question 52 and 42 strong divergence of opinion: problems linked to decentralization , to the non-congestion, to the participation

Issue	3 years – Short term		3-10 years – Medium term		Low possibility	
	For	Criteria	Against	Criteria	No Opinion	Criteria
37	5	1-5	1	Difficult socio-economic conditions	1	Little consensus
38	2	1-2-4-5-6-7	6	5-2-3-4-6 missing consensus	-	
39	6	Technology problem	2	Maintain or recognize	-	
40	8	1-3-5-8-2	2	8-2	-	
41	8	5-2-8-6-3	1	3	-	
42	5	2-5	3	2	-	
43	7	1-5	2	2- time factor	-	
44			8	Complex	-	Impossible
45	1	1-5	8	1-5-4	-	
46	7	1-5-2-8	1	8	-	
47	9	1-5-3-7-8	-		-	
48	8	5-4-6-1-8	3	2-1 complex	-	
49	9	5-1-6-7	1	8	-	
50	10	1-5-3-4-6-7	5		-	
51	5	1-8-2-5-6	3	1-8-5-2-5-6	-	1-8-5-2-5-6
52	7	3-8-6	2	Easy socio-economic conditions. Nation.	1	
53	7	5-8-1-6	6	8-6	1	1-2-5-6-8
54	3	5-8		7-1-2-3-4-6-8		8 economic interests

- Importance of urgency – optimism in the future
- Issues 52 and 42: strong divergence of opinion: problems lined to the centralization, the decongestion and the countries and community participation in the decision making process and the benefits sharing. Problems linked to good governance. Divergence on 42: linked to the experience of implementation of national forest action plans. The political level that will achieve the forest issues in the near future is reassuring for the donors' communities to significantly improve the treatment of those issues.
- Use of the criteria:
  - strong use: 5 (15 times): urgency of the issues
    8 (9 times): national importance
  - (in the short term) 1 (10 times): potential for consensus
    6 (8 times): specific to the forest issue
- Non-use of criterion 9: the criterion is premature in Step 3, may be more appropriate in future steps.
- Issue 48: on the financial mechanism and forest investment: it is important to balance between investment for forest development, the sustainable development of forest and private investment in the forest equipment and industry. In this case, the partnership between the State, the private sector and the communities should be a good solution.

Issue 55	Infrastructure development- Yes, may be advanced in the short term
Issue56	Access to resources (natural resources, capital and other) Natural resource- No go Access to capital may be advanced in the medium to long term
Issue57	Rural policy and land use. Use may be advanced in the short term
Issue58	Governance-the definition must include: 1. Clean government free of corruption 2. Transparency 3. Accountability 4. Participation 5. Upholding the rights of indigenous peoples and local communities. NB. Even though governance may not be specifically dealt with in any instrument, it may be advanced as an

	issue in the short term, under new agreements. It has been recognized also that governance as an element is cross sector al issue.
Issue58	Sustainable development policy. This is an underlying issue but nothing sensible can be considered under a convention or treaty.
Issue60	Policy for allocating forest concession. No relevant as an issue for an international instrument.
Issue61	Partnership between the private sector, civil society and governments. It is proposed that issue No. 66 be included here. This issue may be advanced in an instrument in the short term
Issue62	Monitoring of forest management activities. Yes. Suitable for inclusion in an international instrument.
Issue63	Implementation of forest policy – (Delete maintenance). This was considered an integral part of governance and can be included in an international instrument. However it ought to be considered under issues 4 + 15.
Issue64	Integrate Land use planning. This issue already exists under a number of international instruments and initiatives. Yet very little has been accomplished. Therefore more emphasis can be exercised through regional agreements. Alternatively replace "integrated" with "sound" this may fund inclusion in an international instrument in the medium term.
Issue65	National Law enforcement. This is part of governance. Therefore may be included under that issue and not as stand-alone element.
Issue66	Included in No. 61
Issue67	Benefit sharing. This is an important issue. Yes include for consideration in an international instrument in the medium term.
Issue68	Deleted, same as No. 59
Issue69	Deleted, considered under No. 71
Issue70	Deleted
Issue71	Modified to dispute settlement
Issue69	However a review of this issue suggested that it could be considered as cross border effects as such this is an important issue and can be advanced under an international instrument.
Issue 72	Research. Very important. There is the potential that this issue can be considered in an international instrument in a short term.

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Third session
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Letter dated 29 April 1999 from the Permanent Representative of Australia to the United Nations addressed to the Secretary-General

I have the honour to transmit to you the Executive Summary of the report entitled "A study on the global outlook for plantations". This was developed by Australia to support the United Nations Intergovernmental Forum on Forests (IFF).

I would be grateful if the report could be included in the final list of documents of the Third Session of the IFF to be held in Geneva from 3 to 14 May. Australia will make copies of the report available in Geneva to all members and observers at this session.

The first meeting of the IFF in October 1997 agreed to the listing of a number of new items under Category II (d) (issues needing further clarification) of the IFF programme of work. Category II (d) specifically includes consideration of "future supply and demand of wood and non-wood forest products and services".

To assist the IFF with this issue, Australia has funded a study to examine the future supply and demand for plantations and plantation products. The aims of this study are to collate information on current and expected rates of plantation establishment and expected trends in demand for plantation products; assess the likely implications of plantation expansion on the supply of wood; and identify economic, social and environmental costs and benefits associated with plantations. Australia has coordinated this study on the global outlook for plantations in collaboration with other countries and organizations.

GE.99-51583 (E)

The findings of this study were presented and discussed at the International Experts Meeting on the Role of Planted Forests for Sustainable Development (Chile, 6-10 April 1999). The attached final version incorporates comments made at that meeting and 10 recommendations for consideration by the IFF (3-14 May 1999) regarding the future supply and demand of wood and non-wood forest products and services.

The initiative involved 16 countries and international agencies in the form of a Steering Committee comprising Australia, Brazil, Chile, China, CIFOR, Egypt, FAO, Fiji, IFF Secretariat, Indonesia, Japan, Korea, New Zealand, South Africa, United Kingdom and USA. A number have made in-kind contributions (expert advice, data and country case studies). Details of how to obtain a copy of the full report will be available on the Internet at http://www.abare.gov.au.

(Signed): Penny Wensley
Ambassador
Permanent Representative of
Australia to the United Nations

Executive Summary
A Study on the
Global Outlook for Plantations

A technical paper for the Intergovernmental Forum on Forests

Commonwealth of Australia
May 1999

Executive Summary - A study on the global outlook for plantations was written by Australian Bureau of Agricultural and Resource Economics (ABARE) and Jaakko Poyry Consulting (Asia-Pacific) Pty Ltd.

The Australian Government gratefully acknowledges the Steering Committee and the Australian Reference Committee for their contributions to the study and constructive comments on the draft report.

Photographic images for this report were provided by ABARE, Jaakko Poyry Consulting (Asia-Pacific) Pty Ltd, CSIRO Forestry and Forest Products and the Australian Centre for International Agricultural Research.

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Details on how to obtain a copy of 'A study on the global outlook for plantations' can be found on the Internet at: http://www.abare.gov.au

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Message from the Minister

Plantations are becoming an increasingly important supply of wood and other forest products to the world but have not received a great deal of attention by the Intergovernmental Forum on Forests or its predecessor, the Intergovernmental Panel on Forests. The Government of Australia has commissioned this study as part of its contribution to the work of the Intergovernmental Forum on Forests. In this endeavour we have welcomed input from the Governments of Brazil, Chile, China, Egypt, Fiji, Indonesia, Japan, New Zealand, the Republic of Korea, South Africa, the United Kingdom, and the United States of America and from the Forestry Department of the Food and Agriculture Organisation, the Center for International Forestry Research and the Intergovernmental Forum on Forests Secretariat. These countries and organisations were invited to form a Steering Committee for the study.

This study considers the future of the world's planted forests. In particular it examines the following three questions:

- How rapidly are new plantations being established?
- What impacts will plantations have on the supply of wood? and
- What are the economic, social and environmental implications of plantation establishment?

While this study provides a useful overview of knowledge concerning plantations and the outlook for global and regional wood supply and demand, the study also reveals large gaps in our knowledge about plantations and their products. For example, our knowledge is particularly poor regarding fuelwood and non-wood forest products.

The study also shows that well-managed planted forests can make a valuable contribution to a country's sustainable development.

A number of issues emerge from this study which require the attention of national Governments, international organisations and the private sector. These issues are presented for consideration by the Intergovernmental Forum on Forests in the form of recommendations.

I commend this study to Governments and the international community. I encourage you to recognise the valuable role that planted forests can play and request your support to progress the recommendations in this study.

Wilson Tuckey
Minister for Forestry and Conservation
Australia

Foreword

Plantations have been recognised as being a significant part of future global wood supply and in the development of forest and environmental policy. However, to date the exact role that plantations can play in these issues has not been well understood.

This technical study has been prepared to provide input into the Intergovernmental Forum on Forests. It is intended that the study will provide technical information that will assist in the Forum's policy deliberation process, on issues relating to the supply and demand for wood and non-wood forest products and services.

To date, research in this area has concentrated on two themes: trade in forest products and the characteristics of plantation development. It is not the intention in this study to duplicate previous research but to use the key findings from recent studies and link them into a compatible and assessable format. From this, gaps in information can be identified and the potential role of plantations in future wood supply determined.

The main focus in this study is on the development of plantations for industrial roundwood; however, for completeness, a brief discussion of the use of plantations for fuelwood is also included.

The aim in producing the report is to help raise the profile of plantations globally by providing an information tool to assist governments, policy makers, industry and landowners in their development of plantation strategies.
The study has been funded by Agriculture, Fisheries and Forestry — Australia (AFFA), with contributions from a number of participating organisations and countries.

Brian S. Fisher
Executive Director
ABARE
(Asia-Pacific) Pty Ltd
May 1999

Rob de Fegely
Executive Director
Jaakko Poyry Consulting

Acknowledgments

This study was managed by Allan Hansard (ABARE) and Rob de Fégely (Jaakko Poyry). Drafting of the report was carried out by Allison Ball, Rob de Fégely, Peter Grist, Allan Hansard, Kevin Johnston, Angela Robinson and David Valentine.

The authors wish to acknowledge the assistance of AFFA for its efforts in the coordination of this project, particularly Gary Dolman and Suzette Searle, who were our main contacts.

We would also like to thank the members of the Steering Committee for this project and their colleagues, who contributed data, papers and reports, as well as comments and advice throughout the drafting process of this report.

We would particularly like to thank Jim Ball and his colleagues at the FAO Forestry Department for the provision of information and their comments throughout the drafting of this report.

We are also grateful for the assistance given by the Australian Reference Committee for this study, as well as the Australian IFF Steering Committee, who reviewed the draft report.

Our thanks are also extended to our internal reviewers from both ABARE and Jaakko Poyry.

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Introduction

Plantation forests (plantations) are playing an increasingly important role in meeting the world's growing requirements for wood and non-wood forest products. While plantations represent less than 3 per cent of the world's forest resources they are estimated to supply around a third of industrial roundwood and 10 per cent of fuelwood. Planted forests also supply a large range of non-wood products and services including animal fodder, cork, nuts and fruit, latex, tannin and oils, and are used for recreation and environmental protection. Plantations are also increasingly important as a focus for international forest policy. However, despite the benefits, the exact role that plantations can play is not well understood.

The first meeting of the Intergovernmental Forum on Forests (IFF) in October 1997 agreed to the listing of a number of new items under Category II (d) (issues needing further clarification) of the IFF program of work. Category II (d) specifically includes consideration of 'future supply and demand of wood and non-wood forest products and services'.

Study objectives

This paper provides technical information for consideration by the IFF rather than material addressing policy issues. Specifically, the main objectives in this study into the global outlook for plantations are to:

- collate information on current and expected rates of plantation establishment and expected trends in demand for plantation products;
- assess the likely implications of plantation expansion on the supply of wood;
- identify economic, social and environmental costs and benefits associated with plantations; and
- develop recommendations, in consultation with the study Steering Committee, to be considered by the IFF.

It is not the intention in this study to duplicate existing work. Rather, the aim is to link key findings of previous studies on trade in forest products and plantation development, such as the Norwegian report (Solberg 1996), the FAO Global Forest Products Outlook Report (FAO 1998a) and the FAO Plantations Consultant Report (Brown 1998), with other recent studies and information. From this, gaps in information are identified, the potential role of plantations assessed and recommendations on raising the global profile of plantations are developed.

The main focus in this study is on the development of plantations for industrial roundwood; however, for completeness, a brief discussion of the use of plantations for fuelwood and non-wood forest products is also included.

Defining plantation forests

A continuum exists from highly protected conservation forests to productive, short rotation planted forests, and the interface between some planted and natural forests is indistinct. As a result, a clear definition of plantation forests is difficult to make. Most definitions identify the degree of management as the determining factor between a plantation and a natural forest. Lund (1998), in a paper reviewing definitions of forest, deforestation, afforestation and reforestation, observed 17 definitions of plantation.

This study has used the definition developed by FAO for the Temperate and Boreal Forest Resource Assessment 2000 (FAO 1998b), which identifies plantations as:

> 'forest stands established by planting and/or seeding in the process of afforestation or reforestation. They are either: of introduced species (all planted stands), or intensively managed stands of indigenous species, which meet all the following criteria: one or two species at planting, even age class, regular spacing.'

Location, species and ownership of plantations

Industrial plantations are the focus of this study, as data on fuelwood and non-wood products is either unavailable or was difficult to obtain with the short time available for this study.

Of the 115.9 million hectares of plantations established, most (62 per cent) is located in the traditional wood producing regions (as defined by FAO) of Europe and the former Soviet Union and North and Central America (table i). However, in recent times significant planting has occurred in the temperate and subtropical areas of Africa, South America, Asia and Oceania.

Table i: **Global industrial plantations at a glance**

	FAO Statistical Regions						
	Africa	North & Central America	South America	Asia	Europe/ Former Soviet Union	Oceania	World
Industrial plantations area (million hectares)	3.9	24.2	7.8	30.1	47.1	2.8	115.9
Total effective area (million hectares)	1.4	24.2	7.5	11.2	47.1	2.5	93.9

Plantation area suitable for commercial wood production (%)	36	100	96	37	100	89	81
Species planted (% softwood : % hardwood)	50 50	98 2	53 47	31 69	88 12	90 10	71 29
Ownership levels (% public : % private)	na	60 40	0 100	na	50 50	33 67	na

Na: Not Available

Source: Global Outlook for Plantations Database

Over 60 per cent of the plantations in Asia and Africa have been assessed as unsuitable for commercial wood production because of low productivity, poor management and poor species selection. Some of these have been planted for fuelwood or environmental benefits. This is in contrast to plantations in other regions, where most of the plantations are for commercial wood production. The total area of industrial plantations effectively available for commercial wood production is around 94 million hectares (table i).

Over 70 per cent of plantation forests are softwood species (coniferous species). Softwood species dominate plantations in North & Central America, Europe & former USSR, and Oceania, with significant softwood resources also in the temperate regions of South America and Africa (mainly Chile and South Africa) (table i). Hardwood species (non-coniferous species) dominate plantations in the tropical regions of Asia and the north of South America (mainly Brazil), and there are also significant hardwood plantations in southern Europe (mainly Spain and Portugal). The establishment of hardwood plantations is also increasing in temperate regions of South America, Africa and Oceania. Growth rates are influenced by factors such as the site, species and silvicultural management and vary from less than 7 cubic metres per hectare a year to well over 30 cubic metres per hectare a year. Establishment costs (excluding land purchase) vary also from US$1500 to US$2500 per hectare for softwood and US$1800 to US$4200 per hectare for hardwood plantations.

There is a trend, particularly in the southern hemisphere, away from government development and ownership of plantations to ownership by processing companies, landowners or individual investors. The plantations in South America are mostly privately owned and there is a trend to private ownership in Oceania where most of the plantations were established by governments. However, this is not global, with Europe & former USSR and parts of Asia likely to maintain high levels of public ownership in the future, due to different political objectives.

Costs and benefits of plantations

Unlike many other land uses, plantation development is considered a long term venture, with rotation lengths ranging from five to over fifty years. Plantation development can result in economic, environmental and social costs and benefits.

Economic benefits arise from species and provenance selection and silvicultural regimes that are designed to increase wood production and improve rates of return.

The development of industrial plantations usually depends on factors such as the suitability of land and the proximity to markets and existing infrastructure. In the majority of cases, industry has developed in conjunction with the plantation resource. The development of industry and careful site selection has allowed greater specialisation in growing, harvesting, transporting, processing and marketing of wood. Technological advances in tree breeding and genetic improvement, site preparation, weed control and silviculture have resulted in improvements in commercial yield, health and vigour. As a consequence plantations can now be established on a wider range of sites, with varying silvicultural regimes, resulting in cost savings in management and harvesting and processing. A good example is the development of Eucalyptus globulus to improve its pulping and fibre characteristics, making it highly suitable for the production of fine writing papers. Plantations are now a significant source of industrial wood, with South America and Oceania sourcing more than half of their wood supply from plantations.

Over half the world's production of wood is used for fuel. Consumption of fuelwood is thought to be around 1.7 billion cubic metres a year, although some say this figure is an understatement of total consumption given that it is very difficult to measure. Almost 90 per cent of fuelwood is consumed by developing countries in Asia, Africa and South America. Plantation establishment for fuelwood began on a large scale in the late 1970s, largely in Asia and Africa. Plantation wood from these regions now supplies around 10 per cent of the global fuelwood demand.

Environmental benefits are harder to quantify. Plantations established for site rehabilitation on degraded land can increase biodiversity, and provide improved soil structure, increased soil organic matter and fertility and improve the local microclimate. Plantations of native species, in particular, can contribute to achieving conservation goals and protect core conservation areas. They can also be used to provide corridors between protected areas, control water runoff, provide shelter from wind, heat and sand storms and lower water tables in saline areas. Wood production is not necessarily excluded from plantations developed for environmental protection and in fact the need for wood may be the catalyst for planting. There has been little work to quantify the economic value of environmental protection from plantations. However, the benefits are likely to be significant.

Potential environmental costs can include the simplification of ecosystems, sedimentation and pollution from fertilisers and weedicides. Problems can also arise if plantations reduce the availability of water for other uses. Disease and pest incidence may rise in a plantation, with a potential impact on surrounding land uses.

The social benefits of plantations include employment, the generation of infrastructure (such as roads, communications, housing) and byproducts (such as fuelwood and other non-wood products to remote areas). Governments have encouraged the establishment of plantations to achieve a range of economic and social objectives including the development of rural economies. Plantations can provide a stable form of employment throughout the rotation (establishment, management, harvesting) and in the processing of wood. Grown as a woodlot or integrated into existing land uses, plantations can also provide a supplementary form of income to farmers and landholders as well as providing the environmental benefits discussed above.

Negative social impacts of plantations are usually associated with reduced access to forests for local people and limited rights to use land for traditional activities. To minimise the potential for these social costs, care needs to be taken in plantation design and management to ensure the rights of landowners are considered in developing future plantations.

Where unacceptable economic, social and environmental costs have been identified, they are usually found to be a result of deficiencies in project design and/or management. Full consideration of economic, social and environmental factors in the planning and management of plantations can assist in maximising benefits and minimising costs.

Factors shaping plantation development

There are a number of economic, social and environmental factors that have shaped plantation development in the past and will influence future plantations.

Government involvement

Governments can become involved in plantation development to overcome perceived market failures created by the nature of plantation investments. The long term nature of plantation development is associated with a number of factors that can make plantation investment unattractive to the private sector. These can include: the high risk of investment; the high cost of financing the investment; the long period of investment, with high initial costs for establishment and revenue received only on harvest; the need for a critical mass of wood availability before processing facilities can be developed; lack of information on appropriate species, establishment and management techniques; lack of regional infrastructure to support plantation development; high risk of marketing products especially for small wood from thinnings; and the lack of secondary plantation markets to allow sale of plantations prior to harvesting. The type and magnitude of risks associated with plantings can vary significantly between developed and developing countries and between regions.

Governments can also use plantation developments to meet specific economic, social or environmental policy objectives, including assisting forest industry development, increasing regional infrastructure and employment, and overcoming forest product trade imbalances.

Government policy has been a significant factor in the growth in planted areas over the past 30 years. Large scale plantation development began largely as a government activity in most parts of the world, including the United Kingdom, Australia, Chile and New Zealand. Plantations were developed through direct government involvement or through government incentive schemes, including taxation incentives, loans against subsidised interest rates and other conditions or by grants.

The appropriate role of government in plantation forestry remains an issue of debate, given the demand for forests to supply non-industrial wood products and non-wood products. Since many countries are divesting themselves of their public plantation assets, this may reduce access to many of the non-wood benefits of plantations, or place a cost on these assets that were traditionally provided free of charge.

Markets

Both changing and emerging markets will influence plantation development. New markets in North Asia have resulted in expanded plantation development within and close to this region. Technological advances will also affect plantation development. For instance, tree breeding has improved yields and the quality of products harvested, while new processing technology — such as reconstituted panel boards (eg MDF) and glue laminated products (eg laminated veneer lumber) — is producing more product with less and/or lower quality input.

The emergence of carbon markets has captured the attention of the plantation industry recently, with the possibility of selling the rights to carbon sequestered in plantations. The Kyoto Protocol (11 December 1997), and the subsequent Conference of Parties at Buenos Aires (November 1998), raised the possibility that, where certain conditions are met and where areas can be accurately measured and verified, plantations established since 1 January 1990 may be used to meet countries' Kyoto Protocol targets. Carbon sequestered by these forests could count toward meeting emission commitments or be used in emissions trading. Although international regulations and guidelines on emissions trading and the definitions of forests that could be counted are still in the early stages of negotiation, a small number of trades in the right to carbon sequestered by plantations have occurred in anticipation of carbon sequestration markets developing. There is a potential for carbon markets to influence plantation development and associated wood processing if a trading system is implemented. However, the likely implications for the expansion of plantations are unknown.

Advances in the manufacture of wood products have allowed reconstituted wood products such as particleboard and medium density fibreboard (MDF) to substitute for many solid wood products. While global production of solidwood products has not increased over the past decade, world production of wood based panels has risen by 80 per cent (FAO 1997). Reconstituted and glue laminated products, which can use low grade small diameter logs, favour plantation grown wood. The trend away from solidwood products is expected to

continue and although reconstituted board products may never replace some solidwood products, particularly those used in decorative and high quality furniture uses, there is still significant market share to be gained.

Land availability

Land availability is a key factor that will determine future plantation expansion. For environmental reasons, the majority of plantation development will occur on surplus agricultural land. Regional characteristics and insufficient information make the accurate estimation of the global or even regional areas suitable for plantation development difficult. Estimates vary greatly. Nilsson and Schopfhauser (1995) suggested that globally there are around 345 million hectares of land presently used for agriculture that could potentially be available for plantations and agroforestry, while Grainger (1988) assessed degraded lands in the tropics and estimated that there were about 758 million hectares suitable for plantation development. Land availability is suggested as a major factor in a rising trend of wood supply from the southern hemisphere.

Although demand for forest products is likely to increase in the future, the supply from natural forests is not expected to increase, and may even decrease. As a result, plantations are expected to supply the bulk of any increase in supply. For plantation expansion to occur, plantations will need to be successful in competing for available land with agriculture and other land uses. Additionally, user rights will have a significant impact on the use of agricultural land for conversion to plantations.

Environmental issues

Over the past decades, the way in which society perceives forests has changed. There is increasing focus on the way forests are managed and used. This has resulted in an increase in the area of natural forests set aside as parks and reserves and has limited harvesting activities in natural forests. There is increasing community pressure to improve forest management and harvesting practices and ensure sustainability of all natural forest values. This has increasingly limited the volume of wood harvested from natural forests. As a result, the cost of accessing these forests has increased, creating market opportunities for wood substitutes and wood from plantations or intensively managed accessible natural forests.

To encourage sustainable management, the certification of forest products is being promoted in a number of markets, particularly in parts of Europe. In plantation grown forests, certification is likely to target poor management, the underlying cause of many of the environmental and social costs associated with plantations. A study by Evans (1997) has shown that plantation forestry is sustainable in terms of wood yield in most situations, provided good management practice is maintained. Any problems with potential loss of productivity between successive rotations could be overcome through adjustments to management practices and, in some cases, through the use of fertilisers.

Globalisation of the forest industries

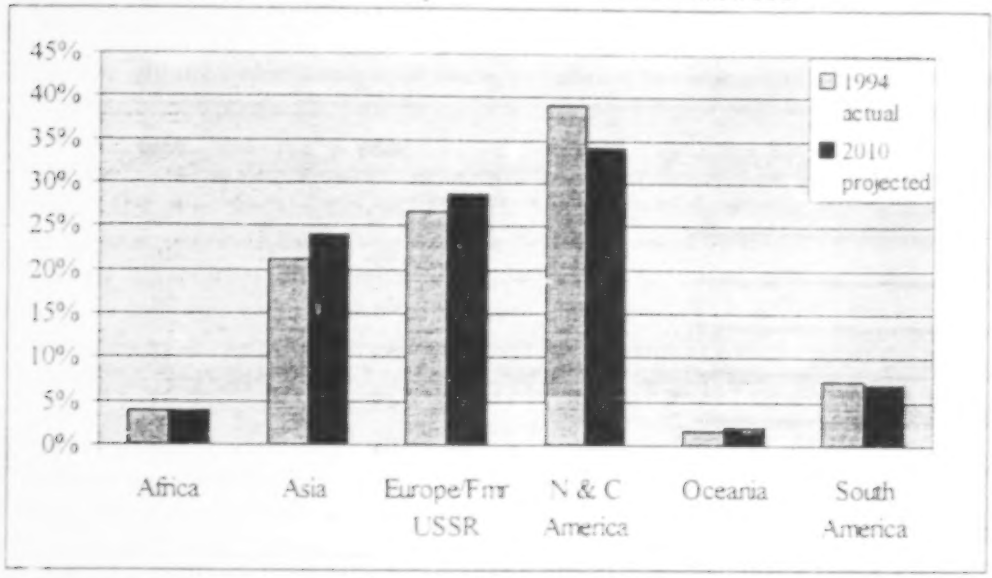
The forest product economy is now global, with international trade in forest products quadrupling since the 1960s. Improved transport systems and worldwide integration of markets for forest products has resulted in wood from one part of the world being shipped to another for processing or sale. World scale, cost efficient processing facilities require mills to be located close to large wood resources. Many of these facilities, such as pulpmills often require wood fibre of a homogeneous quality. These factors favour the development of industrial plantations.

Outlook for wood products

There have been a number of recent studies into the long term demand and supply of wood (see, for example, Solberg 1996, Sedjo and Lyon 1996, Sohngen et al 1997, FAO 1998a). Some of these studies were conducted before the 1997-98 economic crisis in Asia. However, many analysts agree that the downturn will have only a moderate impact on economic growth in the longer term and hence would not necessarily affect the relevance of these studies. It is generally agreed that average annual demand for roundwood will increase by 1—2 per cent a year over the coming decade. Indicative forecasts of consumption (production + imports - exports) by Sedjo and Lyon (1996) suggest that consumption will increase from 1.7 billion cubic metres in 1995 to around 2.3 billion cubic metres by 2045.

These forecasts also reflect the increasing trend in consumption of pulpwood for reconstituted wood panels and paper. Pulpwood consumption is forecast to increase from 700 million cubic metres in 1995 (41 per cent of total industrial roundwood) to around 1.33 billion cubic metres by 2045 (58 per cent of total industrial roundwood). Along with changes to the quantity and type of wood demanded, there are also changes to the regional demand patterns. Based on FAO (1998a) consumption estimates to 2010, Asia and Europe & the former USSR are likely to increase their share of global wood consumption, South America, Africa and Oceania are estimated to retain their share, while North & Central America is expected to decrease its share (figure i). These estimates confirm the views of many analysts that, driven by increasing economic development and population growth, Asia is emerging as an important future market for wood products. Much of the growth in consumption in Europe & the former USSR is likely to come from the developing economies of countries in the former USSR.

Figure i. **Regional share of consumption of industrial roundwood**



Source: FAO 1998a

As with demand, there are likely to be similar changes in the regional patterns of roundwood supply. Regional analysis by FAO (1998a) indicates that Asia and Europe and the former USSR will increase their share of global supply. South America, Africa and Oceania will maintain their share, while North & Central America is expected to decrease its share. In Asia, although there will be some declines in supply from natural forests, there will be increasing supplies from plantations. Much of the supply increases in Europe & the former USSR are likely to come from natural forests in the former USSR, though the high costs of accessing these forests will constrain production. Increasing supply from South America, Africa and Oceania is expected from the increasing plantation resource in these regions. Any increase in supply from North & Central America is likely to come from natural forests in Canada and a growing supply of wood from plantations in the southern part of the region. The United States is unlikely to increase wood supply from natural forests.

Potential supply from plantations

By assessing regional potential, including existing natural forests and plantations, suitable land, infrastructure, access to plantation technology, and political and economic stability, estimates of wood supply from plantations, by region, were made to 2040. Future increases in global supply of wood will be largely from plantations. Industrial wood supply from plantations is estimated to increase by 67 per cent, from 624 million cubic metres in 2000 to 1043 million cubic metres by 2040. Plantations are estimated to meet 35 per cent of estimated global demand for industrial wood by 2000. This is estimated to increase to

44 per cent by 2020 and 46 per cent by 2040 (see Table ii). For all regions this would require a significant increase in plantation area and/or substantial gains in plantation productivity.

Table ii. **Predicted contribution of plantation wood to regional wood supply**

	2000	2020	2040
	(%)	(%)	(%)
Africa	20	39	40
Asia	32	46	48
Europe / former USSR	46	53	55
N & C America	22	29	31
Oceania	55	66	67
South America	63	65	66
World	25	44	46

This future expansion of plantations and their role in supplying wood products was largely determined by the competitiveness of plantation wood against other sources of wood and product substitutes and the competitiveness of plantations as a land use against agriculture, urban use and other uses. Location, ease of harvest, fibre quality and so on, leading to improved efficiency and lower delivered cost of wood, are important in this respect.

Natural forests have traditionally maintained a competitive advantage over plantation forests, due to the high cost of intensively managing plantations. However, this gap is narrowing due to improvements in productivity and efficiency of plantations, the decreasing availability of wood from natural forests and also the increasing cost of accessing these forests. Markets are recognising the increasing competitiveness of plantations. For instance, the world's largest importer of hardwood woodchips, Japan, has increased use of wood from plantations. The major Japanese companies using woodchips have set targets to source a significant amount of their woodchip imports (currently around 10 million bone dry tonnes of hardwood and 3 million bone dry tonnes of softwood) from plantations. This is mainly to reduce costs and ensure uniformity of the wood fibre.

Recommendations

An objective in this study is to identify proposals for action that will assist in raising the profile of plantations globally. The recommendations have been developed in consultation with the study steering committee and are put forward for consideration by the Intergovernmental Forum on Forests.

Definition of plantations

1 Call on countries to adopt an internationally agreed definition of plantations

Global and regional plantation expansion

2 Call on countries to work with the FAO to improve the accuracy of data on plantation areas

3 Call on countries and relevant international organisations such as International Tropical Timber Organisation (ITTO) and FAO to develop and implement forest product statistics databases which clearly segregate wood products derived from natural forests from those derived from plantations

4 Call on countries and international organisations to support a study on the supply of, demand for and value of fuelwood and non-wood forest products, as called for in Proposals for Action by the Intergovernmental Panel on Forests

Emerging issues

5 Call on countries and international organisations to conduct research studies on the long term (over several rotations) sustainability of plantations from economic, social and environmental perspectives

6 Call on countries to implement appropriate codes of practice and guidelines for plantation management, and criteria and indicators of sustainability. There is an expectation that some form of voluntary certification of sustainability will be required

7 Call on countries to contribute to assessing the likely impact of developing carbon markets on plantation development and forest product markets

8 Call on countries and international organisations to undertake studies to identify and report on the availability of land for plantation expansion from biophysical and economic perspectives, taking into account relevant social and environmental constraints

Costs and benefits of plantations

9 Support international organisations and countries to work with FAO to develop a better understanding of, and methods of quantifying, the social and environmental costs and benefits of plantations, including those developed for fuelwood, and to exchange the relevant information

10 Call on countries to identify and remove obstacles to plantation development and trade in the context of the emerging importance of plantations in supplying wood and non-wood requirements

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